Introduction

The focus of this presentation is the scene from the Shāhnāmeh where Sohrāb describes the seven pavilions of the Iranian camp to his guide Hojir, in the hope to find his father Rostam. This scene immediately precedes the tragic father-son combat. It is argued that the description encodes a complex astrological chart, and that the great poet Nezāmi was aware of it when composing his romantic epic, the Haft Peykar some 200 year later. The following therefore highlights Ferdowsi's knowledge of an aspect of ancient epic wisdom which has hitherto not attracted much attention in discussions of the Shāhnāmeh.

Nezāmi completed the Haft Peykar 'The Seven Images' in 1197. Its hero is the Sasanian king Bahrām Gur. In the words of Julie Meisami, it is "a complex allegory of spiritual and moral growth."[1] In the prologue, Nezāmi describes his search for sources, and gives pride of place to the Shāhnāmeh of Ferdowsi (# 4: 19-20, 24-5). He took the story from Ferdowsi, improving on what the latter had left "half-said" (#4: 24). But the central idea of the seven images is believed to be his own. Thus, George Krotkoff, in his groundbreaking decipherment of the esoteric schemes and symbolism encoded in the Haft Peykar, noted that "The most important feature of the HP, the building of the seven coloured pavilions and the visits with the seven princesses is not part of the preexisting legend, but Nizāmī's own invention. It also provides a tangible link with Hermetic literature."[2]

To recall, the central part of the Nezāmi's Haft Peykar consists of the seven romantic stories of King Bahrām's brides, the princesses of the Seven Climes, for whom he had built a palace containing seven domes or pavilions, each dedicated to one day of the week, and governed by that day's planet and bearing its emblematic color (# 4: 30-31). Bahrām modeled the palace in memory of the Khawarnaq, the palace and observatory which had been built for his Arab mentor King Nu'mān, and in which he discovered the room with the images of the seven princesses. Since Nezāmi's seven pavilions are the main reference point here, the respective days, planets, colors, and climes, are listed in Table 1.

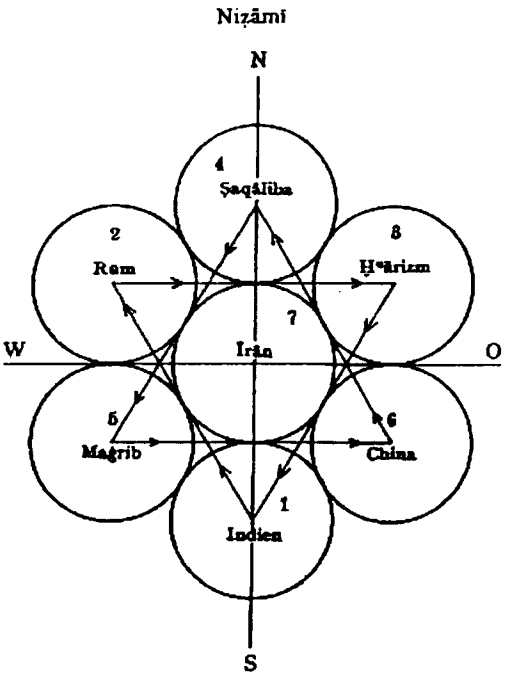
[1] Meisami 1995, xi.

[2] Krotkoff 1984, 100; cf. also Meisami, 1995, 'Introduction,' and her extensive commentary.

Day	Planet	Color	Clime	Direction
1 Saturday	Saturn	Black	India	S
2 Sunday	Sun	Yellow	Rum/Byzantium	NW
3 Monday	Moon	Green	Khwārezm	NE
4 Tuesday	Mars	Red	Saqālebe/Russia	N
5 Wednesday	Mercury	Turquoise	Maghreb	SW
6 Thursday	Jupiter	Sandal	Chin	SE
7 Friday	Venus	White	Iran	Center

Table 1

Diagram 1. The Seven Climes, Mechthild Pantke, 1974, 172.



The arrangement of the pavilions as reconstructed by Mechthild Pantke is shown in **Diagram 1**.[3]
Diagram 1 here

As can be seen, they form a hexagon when arranged schematically by their geographic location. Pantke also recognized that there is an encoded pattern of two interlocking triangles, which appears when connecting the climes according to the days of the week. Thus, Saturday-India, Sunday-Rum, Monday-Khwārezm form the lower triangle, S-NW-NE, while Tuesday-Saqālebe, Wednesday-Maghreb, and Thursday-Chin form the upper triangle, N-SW-SE; Friday-Iran is in the center.

Ferdowsi's Seven Pavilions

Part 1: Overview

To begin with a brief overview of the context of the scene from the Shāhnāmeh:

Sohrāb is seeking his father Rostam. He has amassed an army against the Iranians, and has captured the White Castle on the border. The Iranians are now camped near the castle, finally joined by Rostam from Sistan. During the night, Rostam reconnoiters the Turanian camp, and in the dark unbeknownst kills his uncle Zhande Razm, who was to identify Rostam for Sohrāb. Having lost this guide, in the morning Sohrāb mounts his horse, and from an elevation looks over the vast Iranian camp together with captive Hojir, who is to identify the owners of the seven pavilions. One by one, Sohrāb describes the pavilions of the Iranian champions, first citing their colors, then their heraldic features, and the troops surrounding the tents. But Hojir, afraid that the young champion might kill Rostam, identifies Rostam as a noble from Chin. Whereupon Sohrāb continues to question Hojir's honesty, and enraged finally charges into the Iranian camp, which leads to the tragic father-son combat.

The scene itself is some 112 or 114 lines long, depending on the edition,[4] but the actual description of the pavilions takes only 45 or 47 lines, beginning with line 20 or 21 and ending in the middle of the episode. They are described symmetrically, such that two sets of three

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[3] Cf. Pantke 1974, 172, with detailed discussion of the sources of the complex schemes involved in Nezāmi.

[4] The two editions consulted are Khāleghi-Motlagh 1988-, 2, 157-166, and Bert'els 2, 1962, 211-119; for translations, cf. Warner & Warner 2, 1906, 152-59, and the text with facing translation in Clinton 1987, 88-107.

descriptions each frame the description of Rostam's pavilion, and it may not be coincidental that Hojir's lie, identifying Rostam as a noble from Chin, is found in the exact numerical center of the 45/47 lines.

From the comparative view, this scene is a perfect example of a teichoscopy, which literally means "wall-watch," and is one of the devices found in Indo-European epic. Already Nöldeke identified the relevant ones.[5] To cite only two, from Greek tradition the scene, which is considered the "mother of all teichoscopies,"[6] and found in the third book of the Iliad (3.316 ff.).[7] There Helen, sitting with Priam on the wall by the Skaian gates of Troy, identifies for him Agamemnon, Odysseus, and Ayas below. From Germanic tradition, and most similar to the Sohrāb story, the scene in the Middle High German romance Gudrun Lied (1366 ff., 27th Aventiure), an epic which may ultimately go back to Sarmatian-Iranian themes.[8] There Hartmut identifies for his father Ludwig the princes from a good 20 lands by their colored banners, although only four banners are actually mentioned.

In the Shāhnāmeh, the teichoscopy of Sohrāb is most closely mirrored in the story of Forud, where Tokhwār identifies for Forud the colored banners and emblems belonging to 13 Iranian champions.[9]

From the descriptive view, the teichoscopy of Sohrāb offers a succinct catalog of Iranian heraldics, and together with Forud's teichoscopy and a number of troops reviews in the Shāhnāmeh, it has been an important source for the study of Iranian heraldics, which includes the

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[5] Nöldeke 1896-1904, 179 = 1920, 62.

[6] So characterized by Sinz 1984, 242-3, in his study of the Gudrun saga.

[7] Teichoscopia is the title given by the scholiasts to the third book of the Iliad. The term teichoscopy has recently been revived, and redefined in literary theory, cf. Jerry Garret, in Language and Visuality, 1996.

[8] Sinz 1984. This Gudrun Lied is to be distinguished from the Nordic Gudrun Saga.

[9] Cf. Sarrāmi 1968, 340-41, who noted the close connection between the Sohrāb and Forud stories, and pointed out the considerable length of the teichoscopy in the former, some 10 % of the total lines, compared to the some 26 lines in the latter.

imperial banner known as axtar-e kāviān, that is, the Kavian Star-Banner.[10] But the Sohrāb story stands out among all by mentioning the colors of the pavilions.

From the literary view, one of the outstanding features of this scene is the functional use of colors. As Jerome Clinton notes in his article on the Tragedy of Sohrāb:[11] "Descriptions of the physical setting of the scene, or the appearance of the characters are brief and conventional. Only when Suhrab describes the appearance of the pavilions of the Iranian nobles ranged before him in an effort to discover that of his father do Firdawsī's descriptions become vivid and detailed. But here the art of description has been used to very practical ends. For only those formal and heraldic features of each pavilion that are emblematic of their owners are mentioned." And in his article on language and visuality in the Shāhnāmeh:[12] "At times images command the foreground of the poem, but always to some practical narrative end. To paraphrase Shafi'i-Kadkani, Ferdowsi, contrary to the practice of other poets, does not create images for themselves alone, but as a means of revealing the events and circumstances of the narrative."

The question arises why entire pavilions or compounds would be colored, i.e. color-coded, and why only seven colors have been selected, and only seven pavilions, whereas in other scenes more sets are listed. As mentioned, there are an ominous number of 13 sets in the Forud story.[13]

On a more mundane level, one wonders how the seven pavilions might be arranged, knowing that the traditional military camp and army had a cross-form in its basic, underlying arrangement, though not in its elaborate complex of army and multiple attached quarters.[14]

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[10] Cf. Shahbazi 1994; Ackerman 1964; Sarre 1903, 358-61; also Roes 1933, 33.

[11] Clinton 1984, 69.

[12] Clinton1984, 69, and in press, Ferdowsi and the Illustrations of the Shāhnāmeh, etc.

[13] Shahbazi 1994 points out the consistency of colors and emblems. One should mention, however, that Fariborz's emblem is the moon in the Sohrāb story, but the Sun in the Forud story, evidently taken over from his father Kāus.

[14] Cf. the diagram in the commentary the Sohrāb story by She'ār and Anvari 1363/1984, 123. For more detailed discussions, cf. Bivar 1972, 288-90; Anvari 1967, 129, 131-2, 135, 137, 138-9; and the five elaborate diagrams in Mubārakshāh, ed. Soheyli 1346/1967, 222-27.

All this leads to the fundamental question of the dramatic function of Sohrāb's teichoscopy. It will be shown that important clues to answering this question lie in the arrangement of the pavilions, in their colors, and in the heraldic emblems themselves.

Part 2: Main Characteristics of the Seven Pavilions

There are seven pavilions. All are identified first by their color, then by their banner and emblem, and some also by their banner filials, thrones, and location.

Focussing on the main characteristics, the seven owners of the pavilions are identified in the following sequence: 1. Kāus; 2. Tus; 3. Gudarz; 4. Rostam; 5. Giv, the son of Gudarz; 6. Fariborz; 7. Gorāze of the Givgān clan.

Their respective colors are given as follows: 1. seven- or multi-color; 2. black; 3. red, sorx; 4. green; 5. gold; 6. white; 7. red, sorx. Note that red, sorx, appears twice.

Their respective banners are as follows: 1. Sun on purple, with gold Moon filial; 2. elephant; 3. lion, with center jewel; 4. dragon, with gold lion filial; 5. wolf; 6. Moon; 7. boar, with gold Moon filial. In addition, there is the Kavian Star-Banner, axtar-e kāviyān, in front of the mighty throne of Rostam. In synopsis, these main characteristics, together with adjunct features, are shown in Tables 2a and b:

Table 2a

	Pavilion	Banner	Filial	Throne	Location
1 Kāus	(7)colors	Sun on purple	gold Moon	turquoise-indigo	center
2 Tus	black	elephant			stretching right
3 Gudarz	red	lion, jewel			
4 Rostam	green	dragon	gold lion	mighty, Kavian Star-Banner in front	
5 Giv	gold	wolf (on black)			on side
6 Fariborz	white	Moon		white and teak	direction of rising Sun
7 Gorāze	red	boar	gold Moon		

Table 2a

Troops	Front of Pavilion	Around Tents	Other
1 Kāus		100 elephants	leopard-skin tents
2 Tus	war steeds; back, elephants	many horsemen, elephants	gear
		gate, gold-shoed horsemen	
3 Gudarz		horsemen	
4 Rostam	army guard & elephants		Rakhsh, before Rostam
5 Giv		many horsemen, elephants	trumpets
6 Fariborz	1000 horsemen	infantry with shields, spears	
7 Gorāze	some guards on foot	yellow, red, violet banners	

Arrangement of the Pavilions

Option A

The reconstruction of the arrangement of the pavilions requires some detective work, but it can be deduced from references to the relative orientation of four of the pavilions. There are two options, or levels of encoding. Option A is as follows:

The pavilion of Kāus, # 1, is said to be in the center.

The pavilion of Tus, # 2, is said to be on the right, meymane. That is the technical term for the right wing of the army, and suggests that the camp had a cross-form arrangement, consisting of five sections, hence called xamis or laškar-e panj-jehat: center, qalb, right and left flank, meymane, meysare, advance guard, moqaddame, and rear guard, sāqe. In addition, there were two wings, janāh.

The orientation of the camp can be assumed to be north, so that right is also east. Accordingly, the next mentioned pavilion of Gudarz, # 3, the senior champion, should be on the left, and west.

Next mentioned is the pavilion of Rostam, # 4, which must represent the rear guard. That position would be particularly meaningful. It would reflect his role as the protector of the empire and of the royal glory, farr. That role is "visually" underlined by the location of the Kavian Star-Banner in front of Rostam's mighty throne, which implies that the banner is directly behind the shah in the center.[15]

Of the remaining three pavilions, the pavilion of Fariborz, # 6, must represent the right wing, since it is said to be in the direction of the shining Sun, su-ye tābande šid; and the pavilion of Giv, # 5, must represent the left wing, since it is said to be stretched out on the side, kešide bar karān. There Giv would also be on the side of his father Gudarz.

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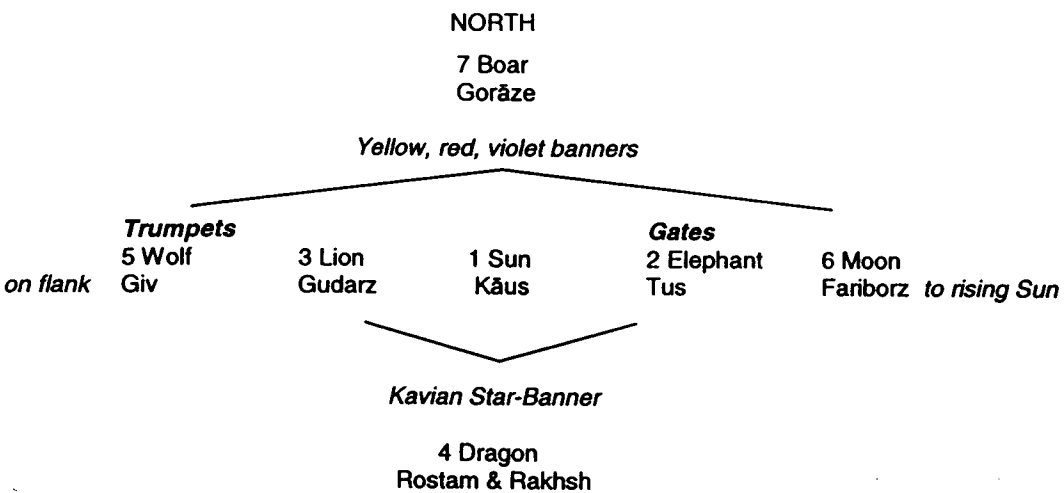
[15] Usually, the position of the banner is in front of the king; cf the summary by Sarre 1903, 359: "In times of peace the standard stood beside the throne of the king (Mohl II 135), and together with the crown and the imperial sword represented the imperial insignia (Mohl VII 387). In all battles the imperial standard played an important role. Five mobeds, appointed by the king, carried it in front of the army on marches (Mohl II 251.441), and during battle the ruler entrusted it to his best paladin, who also has the right to wear golden shoes and enter the battle with tympanons (Mohl II 537. 553 ff.). Power and might are associated with the ownership of the banner. A supernatural shine is emitted from it, and I shines in the night like the sun, filling all with hope (Mohl I 91)."

Diagram 2. Arrangement A of Pavilions



Finally, the pavilion of Goraze, # 7, with only a few guards around, and yellow, red, and violet banners flying, must represent the advance guard, which has the traditional function of the lookout.

Thus, in overview, the arrangement is as follows: The main line has two flanks and two outer wings. There is an advance guard, led by the most junior champion Gorāze, who is probably the son of Giv, or the grandson of Gudarz, and a rear guard, led by the most senior champion Rostam. That Rostam is far in the back, rather than in front,[16] is indicated later in the story. When after his teichoscopy Sohrāb attacked the front of the Iranian camp, Rostam was unaware of of the disturbance, and had to be told. The emerging pattern is shown in Diagram 2. A closer look at the characteristics of the champions reveals two triangles: One is the triad of the junior champions Give, Fariborz, and Gorāze; the other is the triad of the senior champions Gudarz, Tus, and Rostam at the bottom:

Diagram 2. Arrangement A of Pavilions.

Option B: The "Logic" of the Arrangement

Thus, the arrangement of the pavilions does not appear to be haphazard. It reflects the natural division between the two sets of junior and senior champions, and their proper placement according to their relative strength within the traditional arrayal of the army.[17]

It should be noted, however, that this reconstruction is based on the assumption that su-ye tābande šid for Fariborz 'towards the Sun' and kešide bar karān 'on the side' for Giv imply the outer wings of a single attack line. In that case, to note, they do not immediately function to protect the shah in the center. Therefore, it is likely that Ferdowsi envisioned a more sophisticated arrangement, by which the shah would be protected evenly on all sides. This would imply an arrangement which consisted of two parallel lines, as discussed by Bivar, with Kāus in

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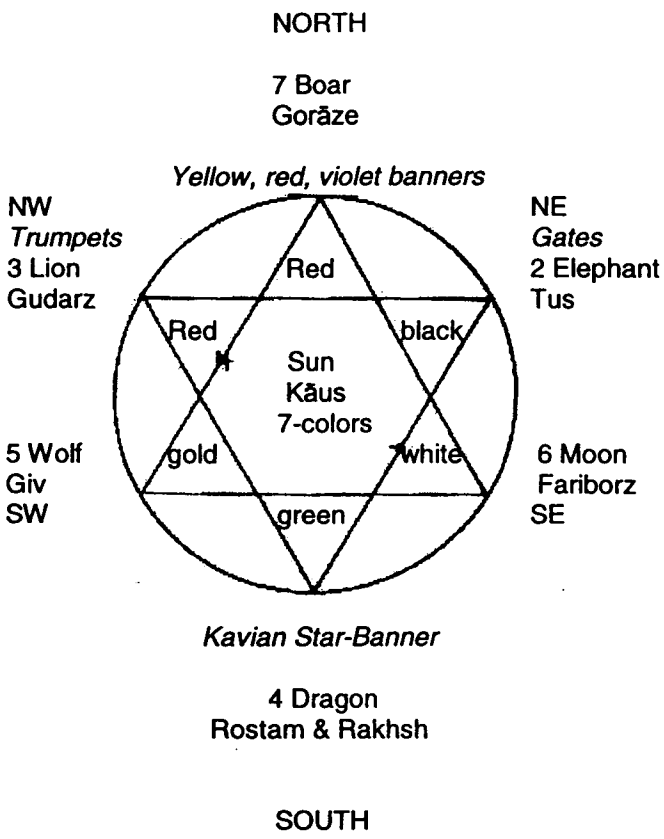
[16] Going to battle, Rostam is usually in front; cf. the citations of the battle arrangements in E'temādi 1970, 135-143, specifically 127, where Kāus placed Rostam in the front, but Tus on the right and Gudarz of the left, just as in the teichoscopy scene discussed here.

[17] At the same time, there is a diagonal logic: When a diagonal is drawn, west of it are the pavilions of Giv, Gudarz, and Gorāze, who represent the Giv clan, while east of it are the pavilions of Tus, Fariborz, and Rostam, all three of whom are loyal to the king, but each in their own circumstances were denied the imperial crown.

Diagram 3. Arrangement B of Pavilions



the center.[18] In that case, the pavilions of Giv and Fariborz would not be on the outer flanks, but behind the frontal right and left wings. That is, Giv would be behind his father Gudarz, and Fariborz would be behind the right hand side of his father Key Kāus. In this arrangement, the six champion would indeed evenly protect the shah on all sides. The resulting figure is that of a hexagon within a circle. A closer look reveals that it is defined by two intersecting triangles around a center, as shown in Diagram 3: one constituted by Gorāze-Giv-Fariborz in the N-SW-SE, the other by Rostam-Gudarz-Tus in the S-NW-NE, respectively.

Diagram 3. Arrangement B of Pavilions.

Some Hexagons-in-Circle in Iranian Tradition

The following explores the possibility that this hexagon-in-circle encodes patterns that are found in analogous geometric figures in Iranian tradition.

The Seven Continents. In geography, there are two well known such patterns. One is the mythical Seven Continents, Haft Kešvar, of the Zoroastrian tradition. It is defined by a central continent, surrounded by six others. However, that circle is defined by an east-west axis, as opposed to the north-south axis here, and so does not appear to have been the main referent intended.

The other hexagon is the hexagon in Nezami's Haft Peykar, which is geographically defined, as shown in Diagram 1 above. However, geography does not appear to be the logic of the distribution of the seven pavilions in the teichoscopy of Sohrāb, considering the home bases traditionally assigned to the six champions involved. The only exception may be Rostam at the bottom of the circle, which could reflect his base in the south in Sistan.

The Calendar. Another such pattern is that of the Iranian calendar, which has 12, that is, twice six, divisions. As has been shown, the 12 month of that calendar, when drawn in form of a circle, form a double hexagon. It is defined by four intersecting triangles, each of which is anchored on one of the four cardinal points of the year, and compass.[19]

When those six months which would correspond to the six outer pavilions in the Iranian camp are superimposed, as shown in Diagram 4, the correlation between champion and constellation would be meaningful. It should noted that the top is Summer, and that the ancient calendary

[18] Cf. Bivar 1972, 289.

[19] Windfuhr 1997, 266.

scheme here reflects that of the Age of Taurus, with Taurus at spring quinox, Leo at summer solstice, Scorpio at fall equinox, and Aquarius at winter solstice.[20]

Diagram 4. The Six Champions and the Calendar.

The triangle of the three senior champions would correspond to the three following month and their spiritual guardians: Gudarz to Ordibehešt, Avestan Arta Wahishta 'Best Truth, Order'; Tus to Shahrivar, Avestan Khshathra Wariya 'Desired Realm, Rule'; and Rostam to Dey, Avestan Dadwah 'Creator'. In the Zoroastrian calendar, this is the basic triangle of the organizing powers, defined by the Creator together with Arta, who is also the guardian of Fire, and Khshathra, who is also the guardian of the Sky and Metals.

The triangle of the three junior champions would correspond to the following three months: Giv to Esfand, Avestan Spantā Aramati 'Holy Proper Thinking, Devotion' who is also the guardian of Earth; Fariborz to Abān, Avestan Apānām '(month) of the Waters'; and Gorāze to Tir, corresponding to the rain-bringing and brightest star Tishtrya 'Sirius'. In the calendar, this is the triangle of generation and fertilization.

The correlation with the constellations, and with the Zoroastrian divine entities who guard those months, could reflect certain characteristics associated with the six champions. Two possible connections must suffice, focusing on the N-S axis: Gorāze at the top would correspond to the summer constellation Tishtrya, that is Sirius, who is also known as the arrow star.[21] This correlation could reflect Gorāze's role as advance guard. On a deeper level, it could also reflect Warāza, i.e. the Boar's mythological origins in the deity Wrthragna, Persian Bahrām, behind whom is Mars, and whose other celestial correlation is probably with the north-polar Boar, Ursa Minor.

At the bottom of the diagram, Rostam is correlated with what in our system is Aquarius, and in the calendar is the month of Dey/Dadwah 'Creator'. This correlation would also be quite fitting: The Creator meant is Apām Napāt 'Offspring of the Waters', who is one of the three ahuras, besides

[20] As in the Babylonian calendar, each direction defined by one of the four Royal Stars, respectively, Aldebaran in Taurus, Regulus in Leo, Antares in Scorpio, and either Fomalhaut in Piscis Austrinus or Altair in Aquila for the winter, the latter being better visivle from northern latitudes; cf. Sesti 1991, 36, and 362.

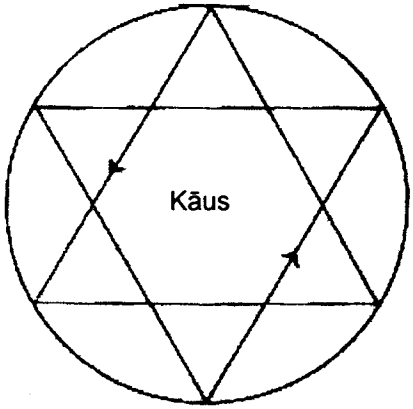
[21] Cf. Panaino 1995.

Diagram 4. The Six Champions and the Calendar

Gorāze
Tishtrya 'Sirius'
Tīr
Yellow, red, violet banners

Trumpets
Gudarz
Arta Vahishta 'Best Truth'/Fire
Ordibehesht

Gates
Tus
Khshathra Variya '*Desired* Realm'/Sky
Shahrivar



Giv
Spanta Aramaiti 'Holy Devotion'/Earth
Esfand

Fariborz
Āpah 'Waters'
Ābān

Kavian Star-Banner

Dadwah 'Creator'/*Dey*
Apām Napāt
Rostam & Rakhsh
Aquarius & Pegasus

Ahura Mazdā and Mithra, in Younger Avestan texts. He is said to be the creator of heroes.[22] He also holds the shining hwarnah, Persian farr, for safe-keeping deep in the waters of the cosmic ocean.[23] There the Turanian Frahrasyan, Persian Afrāsiāb, failed thrice to catch what appears like the bright reflection of the Moon.[24] In turn, the Moon is the celestial bestower,[25] and measurer, of time. Similarly, Rostam is the bestower of kings, keeper of the Kavian Star-Banner, and protector of Iran. The hidden hexagram in the Sohrāb story, thus, would seem to encode and support what Olga Davidson, in her study of Rostam as the bestower of kings, has so convincingly demonstrated, that Rostam's mythological origin is to be found in, or is closely associated with, Apām Napāt.[26]

Part 3: The Color Scheme and the Seven Planets

The colors of the pavilions are the first features identified by Sohrāb. As far as can see seen, that fact has so far been taken as a clue for the troops, just as have the heraldic features, but not as a clue for the reader: Seven colors together with seven pavilions have a long history. They are reminiscent of numerous schemes, known since antiquity, which correlate colors with planets. Best known, in terms of structures, are the colors of the seven walls of Ecbatana-Hamadan, and the seven planetary temples of the Harranian Sabeans. Biruni, Ferdowsi's contemporary,

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[22] Yasht 19. 52

[23] Yasht 19. 51.

[24] Yasht 19. 52.

[25] Dādistān ī Dēnīg, 71.2; on the theory of the moon as bestower of all benefits, cf. Pingree 1963, 241, in reference to Scheftelowitz 1926, 326-331, 344.

[26] Davidson 1985, 100-103. - One may add that the celestial correlate of Rakhsh, Rostam's famous horse which stands in front of him in the teichoscopy of Sohrāb, and similarly a good number of other such horses like the horse Xanthos of Achilles, should be found in the celestial Pegasus north of Aquarius, or in the alternative Sagittarius, where one of the shores of the celestial "ocean" is located, appropriately corresponding to the Zoroastrian-Iranian month Ābān.

describes the planet-color scheme systematically in his Tafhim.[27] However, while the scheme is universal, there is variation in the color assignments of some planets.[28]

In Persian literature, the scheme which is most intriguingly reminiscent of the colors of the seven pavilions in the Sohrāb story is the scheme of the seven pavilions in the Haft Peykar of Nezami.[29] As seen in the comparative Table 3, they are also the closest to each other, even though Ferdowsi assigns red, sorx, twice, to Gorāza and to Gudarz, and in the case of Kāus the manuscripts vary between seven-colors, or multi-color. Their closeness becomes apparent when comparing those two with the scheme found in Biruni and the Greek scheme.

[27] Cf. Boll 1910, 2562-2564; Pantke 1974, 167-179; Biruni 240 ff.

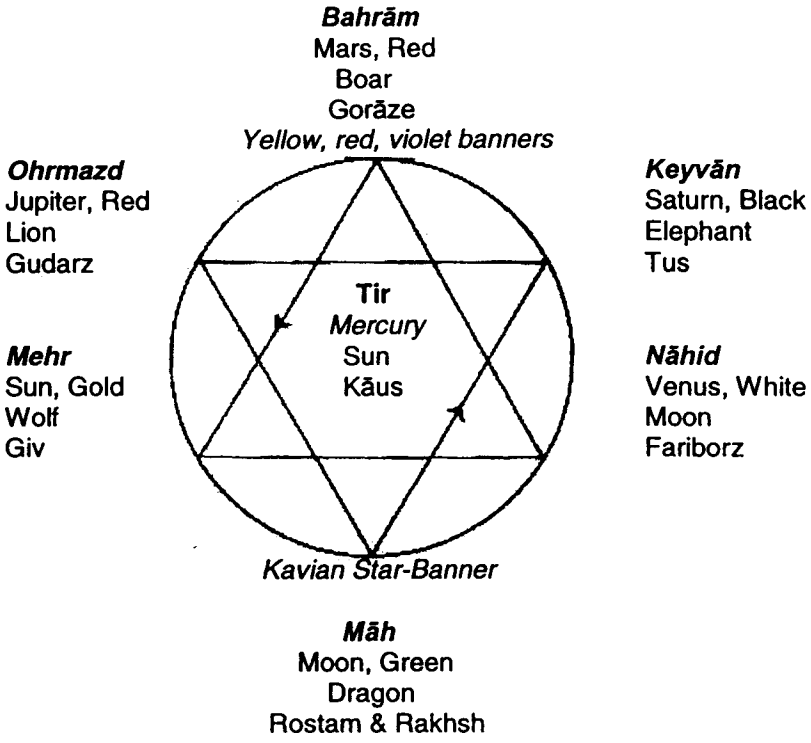
[28] There are no such extended color schemes in Zoroastrian tradition, let alone those involving planets, for which cf. Rossi 1996.

[29] For the symbolism of the colors and planets in the Haft Peykar, cf. Krotkoff 1984, Meisami 1995, Introduction, xxix-xxxi, and Vesel 1995.

Table 3

Planet		Ferdowsi	Nezami	Biruni	Greek
Mercury	Kāus	multi-color	turquoise	azure to indigo	light/blue(-green)
Saturn	Tus	black	black	black	black
Venus	Fariborz	white	white	pure white	yellow
Moon	Rostam	green	green	blue, white, (red)	silver, green
Sun	Giv	gold	yellow	yellow	bright yellow
Jupiter	Gudarz	red	sandal	dusty, brownish	white, grey
Mars	Gorāze	red	red	red	fiery red

Diagram 5. The Seven Champions and their Emblems, Colors, and Planets



To begin with agreements, four of the seven colors, viz. black, white, green, and yellow/golden, are identical or near identical in the Shāhnāmeh and the Haft Peykar. Thereby, black Saturn is correlated with Tus; white Venus with Fariborz;[30] the yellow/golden Sun with Giv, and the green Moon with Rostam.

Accordingly, Ferdowsi's red 1, red 2, and the multi-color must correspond to the three remaining colors in Nezāmi, that is, to red, sandal, and turquoise. Of these, one of the reds should be the red of Mars, and correlated with Gorāze, the Boar, as the advance guard. The second red, that of Gudarz, should correspond to Jupiter, where Nezāmi has sandal, but Biruni has dust color, and white mixed with yellow and brown. Finally, by elimination, the multi-color of Kāus must be correlated with the turquoise of Mercury. This conclusion is supported by the purple, banafš, field of Kāus' banner, and more so by the dark blue color of his throne. Ferdowsi's phrase yeki mahd-e piruze bar sān-e nil 'a turquoise throne tending to indigo' is close to Biruni's "sky-blue mixed with darker color".[31] The reconstructed multiplex pattern encoded by Ferdowsi in the Sohrāb story is shown in Diagram 6.

Diagram 5. The Seven Champion and their Emblems, Colors, and Planets.

To note, it is the scheme of colors and planets which is shared by Ferdowsi and Nezāmi, not the specific distribution of colors and planets, as the comparison of the two hexagons shows. The two only agree in having red Mars at the top. That is, the hexagon-in-circle provides the basic plotting pattern for both; and the difference in positions reflects difference in context and purpose.

Planetary Cycles

The assignment of planets to the champions suggested here appears to produce a conflict between emblem and assigned planet in the case of Kāus and Fariborz. The emblems of Kāus is

[30] There appears to be some uncertainty with regard to the color assigned to Fariborz. Khaleghi-Motlagh 1988, 161 n. 25, accepts white, but a number of manuscripts do not mention a color; a few have yellow. In fact, there is a conflict between color schemes. While Nezāmi has white Venus and green Moon, the Greek scheme has yellow Venus and silver or green Moon. By the Greek scheme, then, Fariborz would correspond to Venus, and Rostam to the Moon.

[31] The translation by Wright somewhat smoothes over the Arabic phrasing, al-zurqa wa al-bayād alladhi yaxlus min humra aw sufra; Biruni 241.

the Sun, but the planet assigned is Mercury; the emblem of his son Fariborz is the Moon,[32] but the assigned planet is Venus. In turn, the planet Sun is assigned to Giv, and the Moon to Rostam. It will be seen in the following discussion that there is no conflict, but two different, interlocking patterns. It may suffice here to refer to two passages, which, while metaphoric, appear to reflect Rostam's correlation with the Moon: His banner is said to shine like the Moon (Mohl 43-394), as does the Kavian Star Banner in front of him (Mohl 12d-658).[33]

The premise in the following is thus: It can be assumed that the relative positions of the champions in Ferdowsi's hexagon-in-circle is astrologically meaningful, and that their emblems, in addition to their traditional functions, involve their astrological re-interpretation.

That astrology may be implied is suggested by Kāus' reputation. His preoccupation with astrology is well known, and his correlation with Mercury, who is typically depicted as a scribe holding tablets, may encode this preoccupation. When Kāus ordered the world, says Ferdowsi, he gave the office of the paladin of paladins to Rostam, the author of his weal.[34] But at the same time he had the divs build him a number of palaces on Mount Alborz, at least one of which was a lofty tower surmounted, according to Ferdowsi, by a copula of onyx, into which he brought arch-magi. As Hildegard Lewy[35] noted, a good part of the myths related to Kāus, who like other early Kayanids tends to be associated with Babylon, may reflect conflation of the Iranian myth with the memory of the last Chaldean King of Babylon before its conquest by Cyrus the Great, Nabu-Na'id, who himself was preoccupied with astrology like all the members of his house, and who is named after Mercury, Nabu.[36] Similarly, the model of Bahrām's Seven Pavilions in Nezāmi's Haft Peykar is the Khawarnaq of the Arab mentor of his youth.

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[32] It should be noted that later, e.g. in the Forud story during the reign of his father's successor Key Khosrow, his emblem is the Sun.

[33] Cf. Ehlers 1995, 213.

[34] Warner & Warner 2, 1906, 101-2.

[35] Lewy 1949, 32; cf. Christensen 1993 (1931), 113-14.

[36] According to Dinawari, Kitāb al-axbār al-tiwāl, ed. Guirgass, Leiden 1888, 14, l. 3, Key Qobād, the first Kayanian king and the father or grandfather of Kāus, was king of Babylon; Tha'ālibi, Ghurar axbār mulūk al-Fars wa siyyarihim, ed. Zotenberg, Paris 1900, 153, states that Kāus' royal residence was in al-'Irāq; and Biruni, Kitāb al-āsār al-bāqiya, ed. Sachau, Leipzig 1878, 37,

The discussion of the relationship between emblem and assigned must begin with Kāus in the center. From a non-astrological viewpoint, his Sun emblem would seem to reflect the central position of the shah, just like the Moon emblem of Fariborz reflects his being the shah's son. From the perspective of astrology, it would seem to reflect the Sun's central position with which all other planets interact, particularly with regard to planetary conjunctions.

The combination of the Sun emblem with Mercury suggests that both together encode the cycle of Sun-Mercury conjunctions. That cycle has the Gestalt of a hexagon, created by three conjunctions in the upper half of the zodiac, and three in its lower half.[37] As a hexagon itself, thus, the combination of Sun and Mercury is very appropriately located in the center, also reflecting Kāus' astrological background. Moreover, the overall cycle of these conjunctions, which slowly shift through the zodiac, takes 20 years, which may encode the hexagonical 6 x 20 = 120 years which Ferdowsi allots to Kāus.

Turning to the combination of Venus with the Moon emblem of Fariborz, this could reflect not only one, but two conjunction cycles, one with the Sun, the other with the Moon. The Venus-Sun conjunctions form two overlapping pentagons; the conjunctions of Venus with the Moon, first as evening star, then as morning star, form two sequential cycles of eight years.[38]

The individual cycles of the two highest planets, Saturn, assigned to Tus, and the cycle of Jupiter, assigned to Gudarz, take 30 and 12 years, respectively. But more important is the cycle of their conjunctions. It is the ominous cycle known by the term triplicities, which played a major role in Iranian astrological time reckoning.[39] The conjunctions occur approximately every 20 years, forming the slowly turning Gestalt of a triangle which moves through the 12 signs of the zodiac in 60 years, with larger, ever more significant cycles of 240, 960, and 2400 years. These are

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II. 3 ff., notes that the Kayanians are the kings of Babylon known among the western peoples as Chaldeans.

[37] Cf. Hinze 1966, 205-6.

[38] Cf. Hinze 1966, 213-4.

[39] For the Iranians as the likely originators of conjunction astrology, and triplicities, cf. Biruni 259; Kennedy 1964, 30-31, 41; Pingree 1963, 1968, 64; de Santillana & von Dechend 1969 (1983), 394.

intimately related to the four elements, given that the zodiacal signs are sequentially assigned to Fire, Earth, Air, and Water, beginning with Aries, and repeated twice.

Thus, Gudarz ~ Jupiter on the upper left of Ferdowsi's hexagon-in-circle, and Tus ~ Saturn on the upper right, may jointly encode the ominous Saturn-Jupiter triplicities. This would also provide a clue to the astrological re-interpretation of these two champions' emblems: The dust-colored Lion of Gudarz represents the beneficent Jupiter, while the black Elephant of Tus represents maleficent Saturn.

The cycle of Mars is reflected in the Boar emblem of Gorāze. This cycle takes 15 years, and is marked by eight loops, that is retrogressions, always in opposition to the Sun.[40]

Astrologically, the effect of Mars is assumed to be most ominous when in triple conjunction with Jupiter and Saturn, and it may not be coincidence that the three, represented by Gorāze ~ Mars, Gudarz ~ Jupiter, and Tus ~ Saturn, form a triangle at the top of the hexagon.

Yet another cycle may be correlated with Rostam. The scheme suggested here assigns to him the Moon, but his emblem is the Dragon. On the one hand, that emblem refers to Rostam's Parthian origin,[41] and thus Saka origin, in particular his maternal ancestor Azhi Dahāka, the Dahian Serpent. On the other hand, astrologically, the Dragon could encode reference to a celestial Dragon. Of those there are two. One is the circumpolar constellation Draco, which guards the celestial north pole, as does the Serpent which winds itself around the Tree of Paradise in the Biblical story of the Fall. The other is the ecliptic Dragon. The ecliptic is the apparent annual path of the Sun through the middle of the zodiac, and the intersections, or nodes, of the Moon with the ecliptic form an undulating Gestalt. More specifically encoded here may be the Dragon of the ominous cycle of the solar and lunar eclipses. With is upper nodes conceived as the head, and lower nodes as the tail, it was known by the name Gōčihr in the Pahlavi books, later Arabicized as Jauzahr. [42]

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[40] Cf. Hinze 1966, 211-2.

[41] Cf. Shahbazi 1993.

[42] MacKenzie 1964, 515 with n. 26.

The re-interpretation of Rostam's assigned emblem and planet leads, finally, to Giv. His emblem is a Wolf, but the scheme suggested here assigns to him the Sun, which on first sight seems to be contradictory, or at least odd. The hidden astrological clue is given by Ferdowsi himself, not in the teichoscopy of Sohrāb, but later, when the color of Giv's Wolf banner is said to be black. That is, it could be the Wolf of the most ominous solar eclipses, which temporarily devour the Sun. That eclipses may be involved with Giv ~ Sun and Rostam ~ Moon may be hidden in other metaphoric clues by Ferdowsi. Rostam's banner darkens, banafš, the face of the shining Sun (Mohl 13e-1290); and the wolf that Mirin is to fight is like a Dragon (Mohl 14-306 ff.).[43]

Thus, just like the ominous interactive conjunctions of Mars, Jupiter, and Saturn, represented by the Boar, Lion, and Elephant of Gorāze, Gudarz, and Tus, form the upper triangle of Ferdowsi's hexagon, so the ominous interactive conjunctions of the Moon, Venus, and the Sun, represented by the Dragon, Moon, and Wolf emblems of Rostam, Fariborz, and Giv, form its lower triangle. And all interact with the Mercury-Sun of Kāus in the center.

Horoscope. Finally, another context where the figure of the hexagon is found are horoscopes. An example is the one reproduced and discussed by Eilers in his Sinn und Herkunft der Planetennamen,[44] where six planets surround the Sun in the center. For casting a horoscope, it is necessary to know the ascendant planet and house. Such seems not to be indicated by Ferdowsi, unless one takes su-ye tābande šid 'toward the direction of the Sun' as the clue, in addition to being a clue for the location of Fariborz' pavilion. Alternatively, the ascendant could be implied in the top position, as in traditional charts. Here it would be at the position of Gorāze, which is correlated with the constellation, or rather sign, Tishtrya/Tir = Leo, and the planet Mars. On this basis, it would be possible to specify the relationship between planet and sign astrologically. For example, Leo, or rather the transition between Cancer and Leo, is said to be the dejection of Mars. In turn, the planet assigned to Tus is Saturn, which is correlated with Libra or Scorpio. Libra is the sign of the exaltation of Saturn. By this reckoning, one could suspect that a quasi-horoscope may also be encoded in Ferdowsi's hexagon:[45]

[43] Cf. Ehlers 1995, 49.

[44] Eilers 1976, 97-100, and Tafel I-II, 15th century Turkish ms., hexagon, with Sun in the center.

[45] For planets and houses, cf. Biruni 255-59.

Conclusion. Ferdowsi and Nezāmi

These notes can only be preliminary. They suggest that one of the functions of the unusual prominence of colors in the teichoscopy of Sohrāb was to provide a clue to a complex astrological chart encoded in it. [46] The colors of the seven pavilions gave the clue to the seven planets. Their arrangement, together with the banner emblems, gave the clue that the focus was not the planets themselves, but their cycles, conjunctions, and cycles of conjunctions. Most prominent, indicated by the specific arrangement of the planets in an upper and a lower triangle, are the Jupiter-Saturn cycle which intersects with the cycle of Mars retrogressions, and the cycle of lunar and solar eclipses which intersects with the Venus cycle. Both cycles would seem to be symbolically represented in their ominous aspects. In particular, they are reflected on the one hand in the frontal positions of Mars-Gorāze together with Saturn-Tus on the right wing, which is the traditional side of attack, and on the other hand in the combination of the Sun with the Wolf emblem of Giv, and of the Moon with the Dragon emblem of Rostam.

If proven true, the question of the origin of this chart arises, that is, whether Ferdowsi designed it himself, or whether he found it in his written sources. His knowledge and use of astrological references in the Shāhnāmeh is well recognized.[47] For example, Gudarz says to his son Giv: hamān axtar-e giti-afruz-e to, to tā zādi az māder be āfarin 'This your world-illuminating star, ever

[46] Neither of the two teichoscopy miniatures known to this author, cf. references at the top of the Bibliography, agrees with the color scheme of the texts. In the miniature of the British Library ms., Sohrāb and Hojir stand on the balcony of a palace, pointing to a greenish-yellow tent, where a male clad in reddish brown is addressed by three persons. A horse's head horse behind the roof points to Rostam. No other tents are shown. The Princeton miniature shows eight tents, of which five form a quincunx, with the blue dome of Kāus's tent in the center, thus indeed protecting the shah from all sides. However, Rostam's dome on the lower left, headed by his Dragon banner, is beige; Giv's dome, with his Wolf Banner on the lower right, is pink. The two domes above Kāus's are brown and yellow, respectively. In the upper half of the picture, a large brown-domed tent stretches across, above which are stacked a brown and a pink tent. Sohrāb points from behind an elevation, on the top right, across the roofs of several tents, to the tent of Rostam. - I thank Professor Jerome Clinton for kindly pointing to the website of his Princeton Shāhnāmeh Illustration Project.

[47] For a brief discussion, together with numerous lines with references to planets in specific sign, see the section Ta'sir-e ma'lumāt-e nojumi dar tasāvir-e Šāhnāme, in Rastegār 1353/1974, 22-24.

(Vullers 820). The stars of individuals fight even before they themselves, setāre be jang andar āmad noxost (Vullers 686).[48]

This raises the question of Ferdowsi's approach to astrology and Hermeticism, an issue which can only be touched upon here. As suggested above, Ferdowsi elsewhere highlights Key Kāus' preoccupation with astrology, and the ironic encoding of an astrological chart implicitly solicited by Sohrāb himself, who had vowed to dispose the crazy Kāus, would appear to be context conditioned, and appropriate.

In their Essay on Myth and the Frame of Time. Hamlet's Mill, the historians of science Giorgio de Santillana and Hertha von Dechend include extensive explications of the heroic myths of the Shāhnāmeh in terms of ancient astronomical lore and knowledge, including the Kāus - Key Khosrow cycle.[49] Comparing Ferdowsi's achievement on the one hand to that of Homer, and on the other to that of the modern scholar Lönnrot, who reconstituted the Finnish epic, the Kalevala, they conclude: "Firdausi did actually know the astrological doctrines through which his scattered sources made coherent sense, and this is undoubtedly what allowed him to weld his Shahnama into a real whole. Lönnrot was not, but the 'short songs' of Finnish peasant tradition were too far removed from the original thought for anyone to recapture it."

It is more significant yet that the very first lines of the Shāhnāmeh, which by their position predicate the work as a whole, include god's role as the creator of the fixed stars and the wandering planets:

be nām-e xodāvand-e jān o xerad — k-az in bartar andiše bar nagzarad
xodāvand-e nām o xodāvand-e jāy — xodāvand-e ruzideh o rahnemāy
xodāvand-e keyvān o gardān sepehr — foruzande-ye māh o nāhid o mehr
ze nām o nešān o gomān bartar ast — negārande-ye bar šode gowhar ast

In the name of the Lord of both wisdom and mind,
To nothing sublimer can thought be applied,

The Lord of whatever is named or assigned
A place, the Sustainer of all and the Guide,

[48] Cited together with numerous others by Scheftelowitz 1926, 326-331.

[49] de Santillana and von Dechend, 1969 (1983), 117.

The Lord of Saturn and the turning sky,
Who causeth Venus, Sun, and Moon to shine,

Who is above conception, name, or sign,
The Artist of the heaven's jewelry!

It may not be coincidence that line 3 of the Shāhnāmeh appears to anticipate the two triangles of Sohrāb's teichoscopy found here. Its first half mentions Saturn and the zodiac he rules, Keyvān o gardān sepehr; its second half cites exactly the triangle correlated with Rostam, that is, the Moon, Venus, and the Sun, Māh o Nāhid o Mehr.

Turning to Nezāmi, this discussion was based on the assumption that there may be an intimate link between the seven pavilions in his Haft Peykar and the seven pavilions in Ferdowsi's teichoscopy of Sohrāb. The connection may indeed be there, even though temporary tents in one case, and buildings in the other. If true, Nezāmi must have deciphered Ferdowsi's encoded hexagon.

Both hexagons-in-circle can be seen as spells and warnings. Sohrāb, while describing the pavilions to identify his father, spells his own fate, death by his father's hand. Nezāmi's Bahrām converts the pavilions into fire-temples. Where Sohrāb failed, Nezami's Bahrām overcomes, and vanishes in a cave, which itself may be an echo of Ferdowsi's Key Khosrow who overcomes, and vanishes on the top of the mountain. The mystery is Time. To put it in a nutshell: The khwarnah/farr, is more than its derivative, the Kh(a)warnaq.[50]

[50] This proper etymology of Khawarnaq was first recognized by Halévy 1907.

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